EXPLORING THE NEXUS BETWEEN INNOVATION AND EMPLOYEE PERFORMANCE – EMPIRICAL EVIDENCE FROM NIGERIAN MANUFACTURING INDUSTRY

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Abstract

Innovation reflects the tendency of a firm to enhance, appreciate and acquire new ideas, novelty, experimentation and the creative processes that may result in new products, services or technological process. The choice of appropriate innovation mix required to enhance organizational performance therefore becomes germane. This study examined the impact of innovation mix in developing countries. Survey research design was used in the study. Data for this research was obtained from Primary sources through the aid of a structured questionnaire. Krejche and Morgan formula were used to estimate the sample size. 368 copies of questionnaires were administered, out of which 309 were found to be useful for the analysis representing valid response rate. The data were analyzed using descriptive statistics and inferential statistics of partial least square structural equation model (PLS-SEM). The hypothesis was tested at 0.05 alpha levels. Findings revealed that there is a significant relationship between innovation mix and market performance ($R^2 = .643$, $P< .000$). Three components of innovation mix, product ($β = .310$, $t= 4.269$, $p< .000$) process ($β = .178$, $t= 3.047$, $p< .002$) market ($β = .317$, $t= 4.720$, $p<.000$) were found to be significantly related to market performance while the fourth component, organization ($β = .080$, $t= 1.390$, $p<.165$) was not significant. The findings of the study revealed that indeed the adoption and implementation of innovative practices makes an organization not only to be proactive to changes but also initiate positive changes that consequently leads to competitive advantage, improved market performance and sustainable performance. It was recommended that organizations should continuously maintain, sustain and improve innovative practices since it is an indispensable tool for improved market performance. Based on the findings of this study, the study concluded that innovative performance is the main vehicle to convey the positive effects of innovation types to market performance. It was recommended that organizations should continuously engage in market innovation practices in order to generate extra value for their customers whilst thriving to cut costs, increase productivity and sustain competitive edge in today’s market.

Keywords: Organization Innovation, Competitive Advantage, Strategy, Performance, Entrepreneurship

1. INTRODUCTION

Innovation and creativity in the workplace have become increasingly important determinants of organizational performance, success, and longer-term survival. As organizations seek to harness the ideas and suggestions of their employees, it is axiomatic that the process of idea generation and implementation has become a source of distinct competitive advantage (Anderson, De Dreu, & Nijstad, 2004; Zhou & Shalley, 2010). Creativity and innovation at work are the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things. The creativity stage of this process refers to idea generation, and innovation to the subsequent stage of implementing ideas toward better procedures, practices, or products. Creativity and innovation can occur at the level of the individual, work team, organization, or at more than one of these levels combined, but will invariably result in identifiable benefits at one or more of these levels-of- analysis. Whereas creativity has been conceived of as the generation of novel and useful ideas, innovation has generally been argued to be both the production of creative ideas as the first stage, and their implementation as the second stage (Amabile, 1996; Shalley & Zhou, Oldham, 2004).

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Innovation and creativity are considered to be overlapping constructs between two stages of the creative process; both are necessary for successful entrepreneurship (Martins and Terblanche, 2003). According to Heye (2006), innovation can be defined as the implementation or transformation of a new idea into a product, service, or an improvement in organization or process. It is a process of continuous renewal involving the entire, enterprise and is an essential part of business strategy. Zairi (1994) confirmed that innovation is the new way of delivering quality products and services to customers both consistently and with economic viability in mind. Creativity on the other hand refers to the production of novel and useful ideas (Amabile, 1996). According to Okpara (2007), creativity is a process by which a symbolic domain in the culture is changed. For example, creativity involves new songs, new ideas, and new machines. He added that creativity is marked by the ability to create and bring into existence, to invest into a new enterprise and to produce through imaginative skills. In a nutshell, creativity encompasses innovation.

Industry is born of a need to make a profit. For that it requires creativity and innovation to thrive. Indeed the value that creativity and innovation brings to an organization cannot be overstated. The OECD and Eurostat, (2005) posits that innovation is central to the growth of output, productivity and a basic factor of competitiveness. Job and Sanghamittra (2006) argue that innovation benefit companies beyond improved efficiencies or sales growth. We can no longer afford relegating creativity and innovation solely to the ‘creative industries’ if we are to adjust and thrive in a global market. Creativity requires development of specific organizational capabilities which deviates from the existing ones. Anderson and Markides (2006) states that for competitive advantage, there is need to come up with a differentiated strategy. As such, thinking ‘out of the box’ has become a recurrent mandate from enlightened shareholders. There has been increasing pressures on organizational stakeholders from the strategic to operational levels to be creative and innovative with their contributory solutions. However the challenge with creativity and innovation is that you cannot mandate innovation per se, or squeeze it out of employees. This is a collaborative process which makes imperative the creation of an enabling environment and value systems.

One of the germane feature in the 21st century is globalization which has created inherent opportunities in terms of access to supply chains and new markets thereby also intensifying competition. To compete effectively therefore, organisations need to innovate successfully. The key then to competitiveness no longer lies in re-applying past successes or the traditional ‘way of doing business’ but in fostering organizational capacity for tolerance and the competencies required to nurture creativity and contain the ambiguities and uncertainties innovation brings. Despite the forgoing importance on the role of organizational innovation and its strategic importance in facilitating improved organizational performance. A review of empirical literature revealed that much of the research that has been done concentrated in advanced world, the body of research work available in developing countries like Nigeria on seems to be few. Thus, a dearth in research. It is against this backdrop that this research investigated the nexus between organizational innovation and performance of selected firms in Nigerian Manufacturing Industry.

2. LITERATURE REVIEW

i. Conceptual Crystallization

a. Creativity

There are many definitions of creativity. A number of them suggest that creativity is the generation of imaginative new ideas (Newell and Shaw 1972), involving a radical newness innovation or solution to a problem, and a radical reformulation of problems. Other definitions propose that a creative solution can simply integrate existing knowledge in a different way. A third set of definitions proposes that a creative solution, either new or
recombined, must have value (Higgins, 1999). A novel idea is not a creative idea unless it is valuable or it implies positive evaluation. Also, according to Ogilvie (1998), imagination, which involves the generation of ideas not previously available as well as the generation of different ways of seeing events, is important to achieve creative actions.

To combine this variety of definitions, we can say that creativity involves the generation of new ideas or the recombination of known elements into something new, providing valuable solutions to a problem. It also involves motivation and emotion. Creativity “is a fundamental feature of human intelligence in general. It is grounded in everyday capacities such as the association of ideas, reminding, perception, analogical thinking, searching a structured problem-space, and reflecting self-criticism. It involves not only a cognitive dimension (the generation of new ideas) but also motivation and emotion, and is closely linked to cultural context and personality factors.” (Boden, 1998).

According to Boden (1998), there are three main types of creativity, involving different ways of generating the novel ideas:

a) The “combinational” creativity that involves new combinations of familiar ideas.

b) The “exploratory” creativity that involves the generation of new ideas by the exploration of structured concepts.

c) The “transformational” creativity that involves the transformation of some dimension of the structure, so that new structures can be generated.

Creative thinking in a disciplined manner can play a real role in innovation. “Creativity and innovation are normally complementary activities, since creativity generates the basis of innovation, which, in its development, raises difficulties that must be solved once again, with creativity...It is not possible to conceive innovation without creative ideas, as these are the starting point. (European Commission 1998). Innovation results when creativity occurs within the right organizational culture. The right organizational culture is one that provides through creativity processes (creative techniques) the possibilities for the development of personal and group creativity skills. We can define creativity IMT as the establishment of skills by implementing creativity generation techniques.

b. Innovation

Innovation is a strategic tool for firms to survive and gain competitive advantages in the global marketplace. Innovative firms can improve their performances, defeat their competitors and provide value to their stakeholders. Innovation is a source of competitive advantage for a firm (Zawislak, Alves, Tello-Gamarra, Barbieux, Reichert, 2012). According to Oslo Manual (OECD, 2005), an innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations.

To Kuratko and Hodgetts (2004), innovation is the creation of new wealth or the alteration and enhancement of existing resources to create new wealth. Innovation is also seen as a process of idea creation, a development of an invention and ultimately the introduction of a new product, process or service to the market (Thornhill, 2006). At present, this concept is applied in every facet of social lives and activities. This makes the innovation concept become more multidimensional and intricate. Innovation is also considered as an effective way to improve firm’s productivity due to the resource constraint issue facing a firm (Lumpkin and Dess, 1996). Bakar and Ahmad (2010) add that the capability in product and business innovation is crucial for a firm to exploit new opportunities and to gain competitive advantage. Product, process, marketing and organization are the various types of innovation. A theme that runs through both the academic and managerial literature is that at the core of organizational innovation, there is the need to improve or change a product or process. Innovation revolves around change, yet not all change is innovative; the change must be substantial and meaningful to a stakeholder.
ii. Theoretical Review - Resource Based View Theory

Theoretically, the central premise of RBV addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources.

Resource Based View emerged as an alternative to the strategic management theories explaining competitive advantage of an enterprise with its market position. The founder of Resources Based View was Edith Penrose who noticed that competitiveness of a firm varies considerably within one industry. Thus scientific community draws their attention to specific resources of a firm that are hard or even impossible to imitate by competitors. Those specific resources are intangible, rare and difficult to imitate and replace. Later the notion of dynamic capacity was developed. Those are the capacities that allow creating new knowledge and adapting to changing environment. Dynamic capabilities can be accepted as the most important resource since they provide assistance in production of new knowledge. Among dynamic capabilities are innovation oriented culture, ability to implement innovations, social capital in terms of cooperation with other market players and entrepreneurial orientation willingness to take reasonable risks and ability to observe new business opportunities. The assessment of innovations demand agreement on clear and coherent indicators of innovative activity of an enterprise.

The resource-based view (RBV) indicates that, firms with valuable, rare, and inimitable resources have the potential of gaining competitive advantage (Barney, 1999). A sustainable competitive advantage (e.g. in terms of low costs/prices, better service, faster delivery, innovativeness) can be described as the development of a unique product market combination, by using resources and taking specific strategic decisions concerning the business. Unique resources or combinations of resources (sometimes also referred to as distinctive capabilities or core competencies) can be categorized as uncodified institutional knowledge (in networked people; in embedded processes) versus sunk costs and irreversible investments (investments in reputation; in legal protection; in specialized assets) (Van der Heijden, 2000).

iii. Empirical Review

Alzuod and Kharabsheh (2015) carried out a research which was aimed at examining the influence of managerial innovation on firm performance in Jordanian Commercial Banks. The study conceptualized managerial innovation as consisting from three dimensions: management practices, management processes and organizational structures. The dependent variable of the study was firm performance which was assessed through an integrated approach that combined financial and non-financial indicators: profitability, market share, returns on investment, customer satisfaction and quality of services. Data was gathered by using a questionnaire survey. The questionnaire was distributed to a sample of 200 branches' managers from branches of Jordanian commercial banks. 135 usable questionnaires were returned. Multiple and simple regression analysis were used to analyse the data. The results illustrated that managerial innovation. The study found that managerial innovation has a positive influence on firm performance in Jordanian Commercial Banks. It also found that there is positive influence between management practices, management processes and organizational structures on firm performance in Jordanian Commercial Banks. The study found that management processes dimension has the strongest influence on firm performance. Conclusion and recommendation were provided.

Olugho (2015) carried out a research which investigated how innovation affects business performance in small and medium-sized enterprises (SMEs) in an up-and-coming market, like Nigeria. Data was collected from 200 respondents of six SMEs companies based in Nigeria. Innovation was measured using the OECD Oslo scale (2005). The study demonstrated that there is a high correlation among factors used to measure innovation. And secondly, innovation was found to influence business performance.
Njeru (2012) carried out a study which sought to investigate the extent of entrepreneurial mindset or the lack of it and its effect to the performance of small manufacturers in Nairobi Industrial Area. The focus of the research was to measure the entrepreneurs’ mindset exhibited through innovativeness, business alertness and creativity and how these attributes contributed to the performance of a business enterprise. The research focused on a population of 625 small and medium manufacturers based in Nairobi industrial area from whom a sample of 230 firms were selected through stratified random sampling method. A questionnaire was used to collect the data. The SPSS software was used by the researcher to run a descriptive statistical analysis and to establish the relationship between the variables. Pearson’s correlation analysis was used. The study revealed that business alertness, innovativeness and creativity respectively played a great role in business performance. Gender and age plus the size of the business were not significant on entrepreneurial mindset and hence not significant on the firm’s performance. It was not however clear as to what exactly creates the entrepreneurial spirit is an individual entrepreneurs and this is an area where further research has been recommended. Similarly, the researcher recommended that all stake holders in economic development review strategies to emphasis on events, policies and programmes that promote entrepreneurial mindset to the players in the market. The study revealed that entrepreneurial mindset or lack of it has a major effect on business performance and if any economy is bended towards development and growth, it would have to embrace this concept.

Iyayi, Akinmayowa, & Enaini (2012) using a theoretical exposition investigated the influence of corporate innovation on entrepreneurial development. To achieve this purpose a review of extant literature on innovation and creativity, concept of corporate innovation process of corporate innovation, approaches to corporate innovation, corporate innovation strategies, and entrepreneurial development influence of corporate innovation on entrepreneurial development was made. The review was concluded by the conceptualization of corporate innovation and entrepreneurial development in a model framework. The analysis indicated that corporate innovation enhances entrepreneurial development and we therefore submitted that corporate innovation should become an integral part of any enterprises if entrepreneurial development must be sustained.

Gudyanga (2013) investigated the relationship between creativity, innovation and organisational culture: achieving external adaptation by leveraging an innovative enabling culture. The study also sought to explore and advance practical recommendations on how an organisation’s innovative and creative potential can be leveraged through culture to ensure organisational adaptation. The study proposed that the decline of the organisation under study was due to its failure to adapt or navigate the environment. Descriptive statistics, Pearson correlation and Regression analysis were used to address research questions and test the hypotheses. Survey results of ART Corporation sample showed that the dominant culture type at ART Corporation is the Hierarchy culture with a mean score of 3.65, sd 0.43. Overall ART Corporation has a lower organisational adaptation index with a mean score of 2.50. sd 0.92. Significant relationships were found between Organisational Culture and Innovation culture (r = 0.56, p<0.00), Organisational culture and creativity and innovation (r=.32 p<0.01); the Innovation culture construct and innovation and creativity index (r = 0.67; p < 0.00,) however an inverse relationship was found between innovation and creativity and organisational adaptation (r = -0.43, p <0.001). A low significant relationship was found between organisational adaptation and organisational culture r =0.20, p<0.11. After controlling for mediation the variance explained by organisational culture changed from 4.2% to 14.44% that is the link with organisational adaptation increased significantly (β=.38, p<0.01) thus failing to satisfy the conditions necessary to determine mediation. Secondary analysis with specific organisational culture dimensions produced significant correlations with the strongest being
dominant characteristics $r=0.52$, $p<0.00$. The results indicate that ART Corporation need to focus on its organisational culture to leverage organisational adaptation.

Audrey (2016) examined the impact of innovation on performance of small and medium enterprises (SMEs) in Tanzania: a review of empirical evidence. This explanatory study uses a desktop methodology to investigate the world wide existing empirical studies results on the relationship between Innovation on Small and Medium Enterprises (SMEs) performance. The literature survey reveal that the studies on innovation and its effect on performance are observed to have concentrated to Western, Middle and Far East and very little empirical evidence is noticeable in Africa. The issue of innovation and how it relate to firm’s performance and specially SMEs is therefore yet to be exhaustively explored. The results from review further find that no consistent results on whether the innovations altogether influence firms performance. The conclusion is therefore not generally viable. The nature of the empirical results reported in this paper indicates a need for such studies especially in Africa where the research fissure is widely observed in this area. The paper is thus a wakeup call for empirical studies that assess the impact of innovation on SMEs performance in Africa and Tanzania in particular where the studies of this nature are rarely found in the review of literature conducted in this paper.

Namusonge, Muturi & Olaniran (2016) examined the role of innovation on performance of firms on the Nigerian stock exchange. The central objective of the paper is to look at the relationship between innovativeness and firm performance in Nigeria. The target population is 176 firms listed in the Nigerian Stock Exchange with financial returns as at August, 2014. Out of the population, a sample of 60 firms was taken. Methods of statistical analyses include mean, standard deviation, and Pooled, Random and Fixed regression models based on the preferences suggested by the Hausman specification test results. The results of panel analysis of the relationship between Entrepreneurial Orientation dimension – Innovation, and performance of firms listed in the Nigerian Stock Exchange, with returns on assets and returns on equity as proxy revealed a negative relationship between innovation and returns on assets and innovation and returns on equity. This results, confirmed a study conducted in 2007 in Nigeria on 88 SMEs earlier mentioned.

Rangarirai, Linet, Thondhlana and Kakava (2013) carried out a research on Innovation in SMEs: A review of its role to organisational performance and SMEs operations sustainability. A descriptive survey was used as the research design. SMEs in manufacturing were grouped into sectorial strata and a sample of 30 SMEs across all sectors was selected. Questionnaires and interviews were used to solicit for relevant data. Collected data was presented and analysed using tables, bar charts and pie charts as extracted from Statistical Packages for Social Sciences (SPSS). The hypothesis test was conducted using the SPSS package. On the findings, innovation was found as one of the major attributes which aid SMEs to remain competitive. Findings also points to a strong link between innovation and SMEs operations sustainability. Other research findings reveal managerial characteristics as the most factor which affect SMEs operations positively. However, environmental factors such as government support were considered to be inadequate for the operations of SMEs.

Otache and Mahmood (2015) did a research on entrepreneurial orientation and performance of Nigerian banks: the mediating effect of teamwork Data were collected from 297 bank managers through a self reported questionnaire. SmartPLS-SEM was used to analyze the data collected and test the hypotheses formulated. The results of the structural model indicated a positive and significant relationship between entrepreneurial orientation and performance. Further evaluation of the structural model showed that teamwork fully mediated the relationship between entrepreneurial orientation and organizational performance.
3. METHODOLOGY
The study population consists of the staff of selected firms in the Nigerian Food and Beverage Sector and Conglomerate namely Cadbury Nigerian Plc, FlourMills Nigerian Plc, Nestle Nigerian Plc, UACN Nigerian Plc, and Unilever Nigerian Plc). This survey research is mainly based on primary data collected from employees. A sample was drawn from the population because it is almost impossible to survey the entire population, hence; a sample size of three hundred and fifty five (355) respondents constitutes the sample size for questionnaires that were administered to the staff respondents out of which only three hundred and nine (309) were found to be useful. Data collected from the questionnaire were analyzed, summarized, and interpreted accordingly with the aid of descriptive statistical techniques. Structural equation model was used to show the degree of relationship that exists between organizational innovation and organization performance.

Hypothesis
Ho: - Innovation mix does not have significant impact on employee performance of selected firms in Nigerian Food and Beverage Sector
H1a: Market innovation does not have significant impact on employee performance of selected firms in Nigerian Food and Beverage Sector
H1b: Organisational innovation does not have significant impact on employee performance of selected firms in Nigerian Food and Beverage Sector
H1c: Product innovation does not have significant impact on employee performance of selected firms in Nigerian Food and Beverage Sector
H1d: Process innovation does not have significant impact on employee performance of selected firms in Nigerian Food and Beverage Sector

4. RESULTS AND DISCUSSION OF FINDINGS

Figure 1 Results of Bootstrapping on Structural Model (Employee Performance)
Table 1 Results of Hypotheses Testing (Employee Performance)

<table>
<thead>
<tr>
<th>Hyp.</th>
<th>Relationship</th>
<th>Beta</th>
<th>S.Error</th>
<th>T-value</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H_{1a}</td>
<td>Market N -&gt; Employee Performance</td>
<td>0.313</td>
<td>0.074</td>
<td>4.286</td>
<td>0.000</td>
</tr>
<tr>
<td>H_{1b}</td>
<td>Organization N -&gt; Employee Performance</td>
<td>0.177</td>
<td>0.062</td>
<td>2.855</td>
<td>0.004</td>
</tr>
<tr>
<td>H_{1c}</td>
<td>Process N -&gt; Employee Performance</td>
<td>0.165</td>
<td>0.051</td>
<td>3.248</td>
<td>0.001</td>
</tr>
<tr>
<td>H_{1d}</td>
<td>Product N -&gt; Employee Performance</td>
<td>0.228</td>
<td>0.069</td>
<td>3.278</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*Note:* Four of the hypotheses are supported based on their T-values (T-value ≥1.96).

Hypothesis 1a predicted that market innovation is related to employee performance. Result (Table 1, Figure 1) revealed a significant positive relationship between market innovation and employee performance based on performance (\( \beta = 0.313, t = 4.286, p < 0.000 \)), supporting Hypothesis 1a.

Hypothesis 1b predicted that organization innovation is related to employee performance. Result (Table 1, Figure 1) revealed a significant positive relationship between organizational innovation and employee performance (\( \beta = 0.177, t = 2.855, p < 0.001 \)), therefore, the Hypothesis 1b is supported.

Hypothesis 1c predicted that process innovation is related to employee performance. Result (Table 1, Figure 1) revealed a significant positive relationship between process innovation and employee performance (\( \beta = 0.165, t = 3.248, p < 0.001 \)). In this regards, the hypothesis 1c is supported.

Finally, in examining the influence of product innovation on employee performance, result indicated that product innovation had a significant relationship with employee performance (\( \beta = 0.228, t = 3.278, p < 0.001 \)), support Hypothesis 1d.

The findings of this study are consistence with previous studies on the employee performance. Gokmen and Hamsioglu (2011) and Costa and Cabrel (2010) who studied the effect of differentiated knowledge source and learning process on technology capacity to innovate and competitive performance using selected Brazilian export companies. The study found the existence of a positive relationship between knowledge, innovative capabilities and competitive performance.

5. CONCLUSION AND RECOMMENDATIONS

Organizations are said to be operating in a turbulent and hyper competitive environment, and it is their desire to continue to operate successfully by creating and delivering superior value to their customers while also learning how to adapt to a continuous and dynamic business environment. Organization innovation is a sine qua non for all organizations because it will put them in a position to survive the dynamism and complexities in the environment. Innovation is a strategy that is widely accepted by most organizations in contemporary economies. It concludes that innovation is a key determinant of entrepreneurial performance, also the type and degree varies across industries. Therefore, every company seeking competitiveness and improved performance should consider the inclusion of appropriate innovation strategies for the realization of desired outcomes.

Based on the findings of this study, organizations need to pay more attention to organizational innovations, which have a crucial role for innovative capabilities. Since innovation strategy is an important and major driver of firm performance and should be developed and executed as an integral part of the business strategy. Organizations should recognize and manage the innovations in order to boost their operational performance. It is therefore recommended that organizations should have a well conceived strategic vision and it must be communicated to all employees. It is imperative to emphasize that all employees
should be carried along in implementation and implantation of organizational innovation that will prepare the company for the future, establish long-term direction and indicate the company's continuous intent to position itself as a market leader in the industry. It is therefore recommended that organizations that wants to continually operate in this 21st century dynamic, turbulent, discontinuous and competitive business environment must embrace innovation in order to meet the ever changing needs of its consumers.

REFERENCES


